California Regional Water Quality Control Board
Santa Ana Region
and
U.S. Environmental Protection Agency
Region IX

ORDER NO. R8-2004-0062
NPDES NO. CA0110604

Waste Discharge Requirements
and
Authorization to Discharge under the
National Pollutant Discharge Elimination System

for the

Orange County Sanitation District
Reclamation Plant No. 1 and Treatment Plant No. 2

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The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), and the U.S. Environmental Protection Agency, Region IX (hereinafter EPA) find that:

1. The Orange County Sanitation District (OCSD; hereinafter discharger, permittee, or OCSD) presently operates Reclamation Plant No. 1, located in the City of Fountain Valley, and Treatment Plant No. 2, located in Huntington Beach at the mouth of the Santa Ana River (see Attachment "A"). The discharge from these facilities is currently regulated by Order No. 98-5, as modified by Order No. R8-2002-0055 (National Pollutant Discharge Elimination System (NPDES) Permit No. CA0110604). This Order and permit has an expiration date of June 8, 2003. Section 122.6, Title 40 (40 CFR) and section 2235.4, Title 23, California Code of Regulations (CCR) state that an expired permit continues in force until the effective date of a new permit, provided the permittee has timely submitted a complete application for a new permit. On December 2, 2002, OCSD submitted an NPDES permit renewal application. Thus the discharger's permit has been administratively extended until the Regional Board and EPA act on the new WDR and permit. This Order is the reissuance of a WDR and NPDES permit for OCSD.

2. The discharger provides regional treatment and disposal of domestic, commercial, and industrial wastewater for the northern portion of Orange County, California. The OCSD services an area of over 450 square miles and serves approximately 85 percent of the County's estimated population of about 2.4 million people. The discharger's current facilities consist of approximately 620 miles of trunk sewer system and force mains, 17 pump stations, two wastewater treatment plants treating approximately 234 million gallons per day (MGD) of wastewater, and two ocean outfall pipes.

3. Reclamation Plant No. 1 and Treatment Plant No. 2 receive domestic, commercial, and industrial wastewaters from the following sewage collection agencies:

   a. City of Anaheim,
   b. City of Brea,
   c. City of Buena Park,

d. Costa Mesa Sanitary District,
e. City of Cypress,
f. City of Fountain Valley,
g. City of Fullerton,
h. City of Garden Grove,
i. City of Huntington Beach,
j. Irvine Ranch Water District,
k. City of La Habra,
l. City of La Palma,
m. County Sanitation Districts of Los Angeles County,
n. City of Long Beach,
o. Rossmoor/Los Alamitos Area Sewer District,
p. Midway Cities Sanitation District,
q. City of Newport Beach,
r. City of Orange,
s. City of Placentia,
t. City of Santa Ana,
u. Santa Ana Watershed Project Authority and Member Agencies,
v. City of Seal Beach,
w. City of Stanton,
x. Sunset Beach Sanitary District,
y. City of Tustin,
z. City of Villa Park,
aa. City of Westminster,
bb. Yorba Linda Water District,
cc. U.S. Marine Corps Air Station El Toro,
dd. U.S. Marine Corps Air Facility Tustin,
ee. Naval Weapons Station Seal Beach, and
ff. Air Forces Reserve Center Los Alamitos.

4. The discharger has contractual agreements with Irvine Ranch Water District, County Sanitation Districts of Los Angeles County, Orange County Water District (OCWD), and the Santa Ana Watershed Project Authority and Member Agencies. The contractual agreements give the discharger the authority to implement and enforce the approved pretreatment program.

5. The discharger's wastewater treatment processes (see Attachment "B") currently consist of the following:

RECLAMATION PLANT NO. 1			
Primary Treatment	Secondary Treatment	Disinfection	Solids Handling
Bar screens Aerated grit chambers Sedimentation basins	High-rate trickling filters (under rehabilitation to be completed by 2006) Activated sludge Secondary clarifiers	Chlorination	Dissolved air floatation thickening Anaerobic digestion Dewatering Land application and municipal solid waste landfill

TREATMENT PLANT NO. 2			
Primary Treatment	Secondary Treatment	Disinfection	Solids Handling
Bar screens Aerated grit chambers Sedimentation basins	Activated sludge Secondary clarifiers	Chlorination/ dechlorination	Dissolved air floatation thickening Anaerobic digestion Dewatering Land application and municipal solid waste landfill

6. Reclamation Plant No. 1 is currently designed to treat 108 MGD of primary treated wastewater and 110 MGD of secondary treated effluent (30 MGD trickling filter plant under rehabilitation and 80 MGD conventional air-activated sludge plant). A maximum of 15 MGD of secondary treated effluent may be conveyed to the OCWD's Water Factory 21 where it receives tertiary treatment prior to groundwater recharge (barrier for seawater intrusion) and for direct reuse for irrigation and industrial process water (Green Acres Project). Ferric chloride and polymer can be added upstream of the primary sedimentation basins to provide for chemically enhanced primary treatment. The primary treatment system at Plant No. 1 is being increased to a design capacity of 198 MGD during this permit term. Chlorination facilities at Plant No. 1 provide for disinfection of the treated effluent with sodium hypochlorite (bleach) prior to discharge. Dechlorination occurs at Treatment Plant No. 2. Treated effluent (primary and secondary) not reclaimed is conveyed from Reclamation Plant No. 1 through interplant pipelines to the outfall booster pump complex at Treatment Plant No. 2 and discharged through the ocean outfall. Raw sewage not treated at Reclamation Plant No. 1 is conveyed to Treatment Plant No. 2 for treatment.

7. Treatment Plant No. 2 is currently designed to treat 168 MGD of primary treated wastewater and 90 MGD of secondary treated effluent (pure oxygen activated sludge). Various chemicals are used to provide for chemically enhanced primary treatment. Disinfection is achieved at various points within Plant No. 2; chlorination facilities use sodium hypochlorite (bleach) and the dechlorination facility uses sodium bisulfite. Blended treated effluent (primary and secondary) from Plant No. 2 is blended with primary and secondary treated effluent from Plant No. 1 and then discharged through the ocean outfall.

8. The combined discharge of Reclamation Plant No. 1 and Treatment Plant No. 2 is to the Pacific Ocean through an ocean outfall system. Discharge points are described as follows:

Discharge Serial No.	***North Latitude***	***West Longitude***	***Description***
001	33°34'36"	118°00'36"	120" Outfall: Primary discharge point to the Pacific Ocean terminating in a multi-port diffuser, approximately 4.5 miles (7,250 m) offshore from the mouth of the Santa Ana River, at a depth of 195 feet (60 m). The capacity at high tide is 480 MGD.
002	33°36'56"	17°58'13"	78" Outfall: Emergency discharge point (deactivated ocean outfall) to the Pacific Ocean, approximately 1 mile (2,100 m) offshore from the mouth of the Santa Ana River, at a depth of 65 feet (20 m).
003	33°38'06"	117°57'20"	Two extreme emergency discharge points (overflow) to the Pacific Ocean at the Santa Ana River. The capacity is approximately 130 MGD.

9. On December 2, 2002, the discharger submitted an NPDES permit renewal application reflecting the OCSD Board of Directors' July 17, 2002 decision to withdraw the discharger's Clean Water Act (CWA) section 301(h) variance and achieve federal secondary treatment standards at the earliest possible date. The application states that end-of-permit design five-day biochemical oxygen demand (BOD_5) and suspended solids (SS) removal rates are 76 percent and 85 percent, respectively, and that the effluent is chlorinated and dechlorinated prior to discharge through the ocean outfall. End-of-permit design flow rates are 316 MGD of primary treated wastewater and 200 MGD of secondary treated wastewater. This application was updated by the discharger's 2003 supplemental permit renewal application (July 2003) and correspondence of May 13, 2004 from B. Anderson, OCSD General Manager, to W. Nastri, EPA Regional Administrator.

10. On May 13, 2004, the discharger requested the inclusion of effluent limitations for five-day carbonaceous biochemical oxygen demand ($CBOD_5$), as allowed by secondary treatment regulations at 40 CFR 133.102(a)(4), for the period following the completion of expanded secondary treatment facilities. $CBOD_5$ limitations will apply to the final effluent during partial or full nitrification at OCSD's secondary treatment facilities, where effluent nitrification is being planned to reduce ammonia toxicity associated with wastewater treatment and brine reject flow from the Groundwater Replenishment System. As nitrifying bacteria use oxygen to degrade nitrogenous compounds otherwise not significantly removed in the secondary treatment process, higher oxygen demand values for the final effluent will result. Consequently, the use of $CBOD_5$ effluent limits will ensure that federal secondary treatment standards for POTWs are achieved while allowing the discharger to use the treatment process of nitrification to reduce ammonia toxicity in the discharged effluent and comply with Ocean Plan requirements for acute and chronic toxicity.

11. The draft Order and permit contain the following effluent limitations based on federal secondary treatment standards pursuant to Section 301(b) of the CWA and its implementing regulations:

Constituent	***Units***	***30-day Average***	***7-day Average***
Biochemical Oxygen Demand (5-day) (BOD_5)[1]	mg/l lbs/day	30. 69,555	45. 104,333
		The 30-day average percent removal Shall not be less than 85 percent.	
Carbonaceous Biochemical Oxygen Demand (5-day) ($CBOD_5$)	mg/l lbs/day	25. 57,963	40. 92,740
		The 30-day average percent removal shall not be less than 85 percent.	
Suspended Solids (SS)	mg/l lbs/day	30. 69,555	45. 104,333
		The 30-day average percent removal shall not be less than 85 percent.	
pH	pH units	Within limit of 6.0 to 9.0 at all times.	

[1] In lieu of the parameter BOD_5 and the BOD_5 levels specified for effluent quality in this table, the parameter $CBOD_5$ and the $CBOD_5$ levels specified for effluent quality in this table may be substituted and reported by the discharger.

12. The discharger's end-of-permit (i.e., 2009) effluent mass emission rates are calculated using an end-of-permit annual average influent flow of 278 MGD. As described in the application, OCSD cannot meet these effluent quality requirements with existing treatment facilities, and full compliance with secondary treatment requirements for all of the flow is not anticipated to occur until 2013. Appendix Q of the application summarizes projected changes in effluent quality and flows associated with the ramping-up of secondary treatment facilities to achieve maximum performance from both existing and new treatment facilities during this permit term.

13. As described, above, this Order and permit contain effluent limitations based upon federal secondary treatment standards, as required by 40 CFR 125.3 and 40 CFR 133. EPA and the Regional Board also expect that compliance with secondary treatment requirements governing the OCSD discharge will be addressed by a complaint to be filed and a consent decree to be lodged shortly after the effective date of this Order and permit. EPA and the Regional Board expect that the consent decree will establish a schedule by which OCSD will complete the planning, design, construction, and operation of facilities necessary to attain compliance with secondary treatment requirements in this Order and permit, and will establish interim effluent limits for BOD_5 and TSS. Pursuant to 28 CFR 50.7, the public will be given notice and an opportunity to comment upon the consent decree before it becomes effective.

14. In 1999, the OCSD adopted a comprehensive 20-year master plan of capital facilities, including expansion and rehabilitation, entitled "OCSD Strategic Plan". Four years later, in conjunction with the OCSD Board of Directors' 2002 decision to achieve federal secondary treatment standards, OCSD adopted "Interim Strategic Plan Update", a comprehensive revision to the strategic plan. This strategic plan update addressed the additional needs for refurbishing, rehabilitation, and new construction, in order to provide adequate facilities to upgrade the effluent treatment level to secondary treatment standards, and is the basis for the discharger's December 2002 NPDES permit renewal application.

15. The Groundwater Replenishment System (GWRS), a major regional wastewater reclamation project, is in its construction phase and is scheduled to come online by 2007. At that time, up to approximately 100 MGD of the discharger's secondary treated effluent will be diverted to newly constructed advanced treatment facilities on OCWD's adjoining property. Part of OCWD's advanced treatment process (which includes microfiltration and reverse osmosis) will generate filter backwash and concentrates high in salts, ammonia nitrogen, and trace metals. These wastestreams will be returned to OCSD for treatment and ocean disposal. To facilitate implementation of this major regional water reclamation project and minimize the effects of the resulting ocean discharge on the marine environment, the permit contains a reopener provision (see Permit Re-opening, Revision, Revocation and Re-issuance). In addition to the GWRS, the discharger continues to implement programs designed to reduce wastewater flows into its treatment systems. These include ongoing water conservation efforts focusing on permanent installation of water saving plumbing fixtures and programs designed to reduce/eliminate inflow and infiltration to the OCSD sewer collection system. These efforts have the added benefit of ultimately reducing both average dry-weather and peak wet weather

flows, delaying (or eliminating) the need to construct a new ocean outfall for disposal of peak flows.

16. As part of a regional policy to control dry weather urban runoff to Huntington State Beach, the discharger reroutes runoff from stormwater pump stations and storm channels in the City of Huntington Beach and other Orange County coastal cities, into its sanitary sewer system for treatment and disposal, on days when it does not rain. Currently, the discharger accepts 2.5 MGD of dry weather urban runoff from diversion systems operated/managed by the Cities of Huntington Beach and Newport Beach, Orange County Flood Control District, and Irvine Ranch Water District. Due to its limited collection and treatment capacity and designated jurisdictional responsibilities, the discharger is working with State and local agencies in Orange County to establish criteria to prioritize chronic storm drains that warrant a diversion system.

17. A revised Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) became effective on December 3, 2001. The Ocean Plan contains beneficial uses and water quality objectives for ocean waters of the State. Ocean waters of the State are the territorial marine waters of the State as defined by California law to the extent that these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside of the territorial waters of the State could affect the quality of waters of the State, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters. The requirements contained in this Order and permit are necessary to assure no violation of the Ocean Plan will occur in ocean waters of the State.

18. A revised Water Quality Control Plan, Santa Ana River Basin (Basin Plan) became effective on January 24, 1995. Subsequently, the Basin Plan has been amended by Regional Board Resolution Nos. 97-20, 98-100, 98-101, 99-10, 00-27, and R8-2004-0001. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region.

19. The existing or potential beneficial uses of the Tidal Prism of the Santa Ana River (to within 1,000 feet of Victoria Street) include:

    a. Water contact recreation,
    b. Non-contact water recreation,
    c. Commercial and sportfishing,
    d. Wildlife habitat,
    e. Rare, threatened or endangered species, and
    f. Marine habitat.

20. The Nearshore Zone of the Pacific Ocean is within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline. The existing or potential beneficial uses of the Nearshore Zone include:

a. Industrial service supply,
b. Navigation,
c. Water contact recreation,
d. Non-contact water recreation,
e. Commercial and sportfishing,
f. Preservation of biological habitats of special significance,
g. Wildlife habitat,
h. Rare, threatened or endangered species,
i. Spawning, reproduction, and development,
j. Marine habitat, and
k. Shellfish harvesting.

21. The Offshore Zone consists of waters between the Nearshore Zone and the limit of ocean waters of the State. The existing or potential beneficial uses of the Offshore Zone of the Pacific Ocean include:

a. Industrial service supply,
b. Navigation,
c. Water contact recreation,
d. Non-contact water recreation,
e. Commercial and sportfishing,
f. Wildlife habitat,
g. Rare, threatened or endangered species,
h. Spawning, reproduction, and development, and
i. Marine habitat.

22. The requirements contained in this Order and permit are necessary to implement the Basin Plan.

23. On July 19, 2002, the Regional Board determined, and EPA agreed, that it is appropriate to apply water quality standards for bacterial indicators throughout the water column in the offshore zone to assure that the OCSD discharge does not pose a threat to water contact recreational uses in both nearshore and offshore waters. The discharger's NPDES permit and Waste Discharge Requirements were amended accordingly by the Regional Board and EPA (Order No. R8-2002-0055). To meet this requirement, OCSD has operated temporary chlorination/dechlorination facilities, using sodium hypochlorite (chlorine bleach) and sodium bisulfite, since August 2002. Because wastewater disinfection with chlorine usually produces a chlorine residual, and because chlorine and its reaction byproducts are toxic to aquatic life, effluent limits for total chlorine residual are included in this Order and permit. OCSD is conducting an investigation of alternative long-term disinfection methods for the discharge as part of its Effluent Pathogen Reduction Alternative Plan Study.

24. Effluent limitations for conventional, non-conventional, and toxic pollutant parameters are established based on Table A effluent limitations and Table B water quality objectives in the Ocean Plan. Mass emission rate effluent limitations for these pollutant parameters are based on a projected end-of-permit influent flow of 278 MGD. The minimum probable initial dilution (Dm) used to calculate effluent limitations for non-conventional and toxic pollutant parameters based on Table B water quality objectives is 180:1. Dm is expressed as parts seawater per part wastewater.

25. The 1998 permit, as modified in 2002, contains effluent limitations for the following non-conventional and toxic pollutant parameters in Table B of the Ocean Plan: total chlorine residual, acute toxicity, chronic toxicity, aldrin, chlordane, bis(2-ethylhexyl)phthalate, DDT, heptachlor, hexachlorobenzene, PAHs, and toxaphene. For the draft permit, the need for effluent limitations based on water quality objectives in Table B of the Ocean Plan was re-evaluated in accordance with 40 CFR 122.44(d) and EPA guidance for statistically determining the "reasonable potential" for a discharged pollutant to exceed an objective, as outlined in the revised *Technical Support Document for Water Quality-based Toxics Control* (TSD; EPA/505/2-90-001, 1991). This statistical approach combines knowledge of effluent variability (as estimated by a coefficient of variation) with the uncertainty due to a limited number of effluent data to estimate a maximum effluent value at a high level of confidence. This estimated maximum effluent value is calculated as the 99 percent confidence level of the 99th percentile based on a lognormal distribution of daily effluent values. Projected receiving water values (based on the estimated maximum effluent value or the reported maximum effluent value and Dm), can then be compared to the appropriate objective to determine the potential for an exceedance of that objective and the need for an effluent limitation.

26. The Regional Board and EPA examined effluent data provided by the discharger for years 1998 - 2003. A reported maximum effluent value and maximum reported detection limit were identified for each pollutant. These data were then used to calculate pollutant-specific reasonable potential multipliers. After considering Dm, projected receiving water concentrations were used to determine that: acute toxicity, chronic toxicity, and 8 organic pollutants[2] (i.e., benzidine, chlordane, 3,3'-dichlorobenzidine, hexachlorobenzene, PAHs, PCBs, TCDD equivalents, and toxaphene) showed the potential to exceed their respective objective, and required effluent limitations. Water quality based effluent limitations for these pollutants were calculated using procedures outlined in the Ocean Plan.

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[2] Although 1998 - 2003 effluent concentrations for these organic constituents are at non-detect levels, their projected receiving water values based on OCSD's maximum reported detection limits are higher than *Table B* water quality objectives in the Ocean Plan. These constituents are known to occur in POTW effluents. Consequently, WQBELs are prescribed as conservative safeguards for protecting water quality.

27. As previously described, OCSD has operated temporary chlorination/dechlorination facilities, adding sodium hypochlorite (chlorine bleach) and sodium bisulfite to wastestreams, since August 2002. Because wastewater disinfection with chlorine usually produces a chlorine residual, and because chlorine and its reaction byproducts are highly toxic to aquatic life, effluent limits for total chlorine residual based on Ocean Plan requirements are included in this Order and permit.

28. The Regional Board and EPA have considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California, (known collectively as "antidegradation" policies) and find that the discharge is consistent with those provisions.

29. To address the uncertainty due to potential increases in toxic pollutant loadings from the discharge to the marine environment during the five-year permit term, and to establish a framework for evaluating the need for an antidegradation analysis to determine compliance with State and federal antidegradation requirements at the time of permit reissuance, 12-month average mass emission benchmarks have been established for effluent discharged through Discharge Serial No. 001 [see Monitoring and Reporting Program (M&RP) No. R8-2004-0062.]. The mass emission benchmarks (in metric tons per year; MT/yr) for the OCSD discharge were determined based on 1990 through 1994 effluent concentrations, using the concentration associated with the 95th percentile of the 4-day average distribution of daily effluent concentrations and the discharger's projected end-of-permit flow of 278 MGD. These mass emission benchmarks are not enforceable water quality based effluent limitations. They may be re-evaluated and revised during the five-year permit term.

30. Effluent limitations, national standards of performance, and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 403, 404, 405, and 501 of the CWA, and amendments thereto, are applicable to the discharge. This permit contains requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the CWA; 40 CFR 35 and 403); and/or Section 2233, Title 23, CCR. The application states that 126 significant industrial users and 243 categorical industrial users discharge to the treatment works. OCSD also receives treated waste from remedial activities at the Stringfellow Superfund Site.

31. On February 19, 1993, the EPA issued a final rule for the use and disposal of sewage sludge (40 CFR 503). This rule requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. The State has not been delegated the authority to implement this program, therefore, EPA is the implementing agency.

32. Storm water runoff is managed by internal drainage systems at Reclamation Plant No. 1 and Treatment Plant No. 2. Storm water is captured, treated, and discharged to the Pacific Ocean with the treated wastewater and is regulated under this Order and permit.

33. The OCSD discharge is subject to the requirements of Section 403(c) of the CWA and its implementing regulations at 40 CFR 125, Subpart M. These requirements apply to point source discharges to territorial seas, the contiguous zone and oceans, and allow for more stringent effluent limitations or permit conditions when necessary to protect the marine environment. The Regional Board and EPA have considered the impact of the discharge pursuant to Section 403(c) and find that the discharge will not cause unreasonable degradation of the marine environment.

34. Pursuant to 40 CFR 125.123(d)(2), the draft Order and permit include a monitoring and reporting program which is sufficient to assess the impact of the discharge on water, sediment, and biological quality, including analysis of the bioaccumulation and/or persistent impact on aquatic life due to the discharge. In 1998, the receiving water monitoring program was revised to reallocate the discharger's monitoring effort into three components (i.e., Core Monitoring, Strategic Process Studies, and Regional Monitoring Activities) to address crucial physical, chemical, and biological processes not addressed by earlier monitoring programs, and provide a regional framework for interpreting discharge-related effects. These three components are retained from the 1998 permit and are necessary to evaluate compliance with this permit, federal ocean discharge criteria and State water quality standards, and to assess the effects of the discharge on the marine environment.

35. The EPA's reissuance of the OCSD permit is subject to requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and Section 7 of the Endangered Species Act (ESA). The EPA is reviewing information related to: (1) essential fish habitat and managed and associated species, and (2) threatened and endangered species and their designated critical habitats, in the vicinity of the OCSD outfalls). Based on this and other relevant information, EPA is evaluating whether there are effects on essential fish habitat and managed and associated species protected under the MSA, or on threatened and endangered species and their designated critical habitats protected under the ESA. (Previous determinations by the National Marine Fisheries Service and U.S. Fish and Wildlife Service (collectively, the Services) have found the discharge consistent with ESA requirements.) Based on the outcome of this analysis, EPA may engage in consultation with the Services during, and subsequent to, this permit reissuance. The EPA may decide that changes to this permit are warranted based on the results of the completed consultation, and a reopener provision to this effect has been included in this permit.

36. The California Coastal Commission has indicated that it is not necessary to obtain a consistency certification pursuant to the Coastal Zone Management Act [16 U.S.C. 1451 *et seq*.] for the issuance of an NPDES permit containing secondary treatment requirements.

37. The Regional Board has determined that its joint issuance of this NPDES permit with the EPA serves as its certification under Section 401 of the CWA that any discharge pursuant to this permit will comply with CWA provisions at 33 U.S.C. 1311, 1312, 1313, 1316, and 1317.

38. In accordance with Section 13389 of the California Water Code [CWC], the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

39. On July 21, 2004, the Regional Board and EPA notified the discharger and other interested agencies and persons of their intent to prescribe waste discharge requirements and authorization to discharge under the National Pollutant Discharge Elimination System (NPDES) for the discharge, and have provided them with an opportunity to submit their written views and recommendations. A public comment period was held from July 21, 2004 through September 17, 2004.

40. The Regional Board and EPA, at a public workshop on August 13, 2004 and a public hearing on September 17, 2004, heard oral comments pertaining to the discharge.

41. The Regional Board and EPA have considered all written and oral comments submitted during the public comment period pertaining to the discharge.

42. When a final NPDES permit is issued by the EPA, it will become effective 33 days following the date it is mailed to the discharger, unless a request for review is filed. If a request for review of the permit is filed, only those permit conditions which are uncontested will go into effect pending disposition of the request for review. Requests for review must be filed within 33 days following the date the final permit is mailed and must meet the requirements of 40 CFR 124.19. All requests for review should be addressed to the Environmental Appeals Board (EAB) as follows. Requests sent through the U.S. Postal Service (except by Express Mail) must be addressed to the EAB's mailing address, which is: U.S. Environmental Protection Agency; Clerk of the Board; Environmental Appeals Board (MC 1103B); Ariel Rios Building; 1200 Pennsylvania Avenue, N.W.; Washington, D.C. 20460-0001. All filings delivered by hand or courier, including Federal Express, UPS, and U.S. Postal Express Mail, should be directed to the following address: Environmental Appeals Board; U.S. Environmental Protection Agency; Colorado Building; 1341 G Street, N.W., Suite 600; Washington, D.C. 20460. Those persons filing a request for review must have filed comments on the draft permit, or participated in the public hearing. Otherwise, any such request for review may be filed only to the extent of changes from the draft to the final permit decision.

43. This Order serves as an NPDES permit for the discharge of treated effluent by the discharger to the Pacific Ocean pursuant to Section 402 of the CWA, and amendments thereto. This Order is being issued simultaneously with Monitoring and Reporting Program (M&RP) No. R8-2004-0062. This Order and M&RP are considered the NPDES permit for this discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE SPECIFICATIONS:

1. The discharge of wastes at Discharge Serial No. 001 in excess of the following limitations[3] is prohibited:

   a. Secondary Treatment Effluent Limitations:

Constituent	***Units***	***30-day Average***	***7-day Average***
Biochemical Oxygen Demand (5-day) (BOD_5)[4]	mg/l lbs/day	30. 69,555	45. 104,333
		The 30-day average percent removal shall not be less than 85 percent.	
Carbonaceous Biochemical Oxygen Demand (5-day) ($CBOD_5$)	mg/l lbs/day	25. 57,963	40. 92,740
		The 30-day average percent removal shall not be less than 85 percent.	
Suspended Solids (SS)	mg/l lbs/day	30. 69,555	45. 104,333
		The 30-day average percent removal shall not be less than 85 percent.	

[3] Mass emission rates in Section A.1 of this permit are based on a projected end-of-permit annual average influent flow of 278 MGD.

[4] In lieu of the parameter BOD_5 and the BOD_5 levels specified for effluent quality in this table, the parameter $CBOD_5$ and the $CBOD_5$ levels specified for effluent quality in this table may be substituted and reported by the discharger.

b. Ocean Plan Table A Effluent Limitations:

Constituent	***Units***	***30-day Average***	***7-day Average***	***Maximum at any time***
Grease and Oil	mg/l lbs/day	25. 57,963	40. 92,740	75. 173,889
Suspended Solids	n/a	As 30-day average, 75 percent removal from influent stream or 60 mg/l, whichever rate is higher.		
Settleable Solids	Ml/l	1.0	1.5	3.0
Turbidity	NTU	75.	100.	225.
PH	pH units	Within limit of 6.0 to 9.0 at all times.		

c. Suspended Solids Limitations:

For effluent limitations 1.a and 1.b, the more stringent 30-day average suspended solids limitation shall be controlling.

d. Ocean Plan Table B Effluent Limitations for Protection of Marine Aquatic Life:[5]

Constituent	***Units***	***6-month Median***	***Daily Maximum***	***Instantaneous Maximum***
Total Chlorine Residual	mg/l lbs/day	0.36 834	1.45 3,361	10.86 25,179
Acute Toxicity	TUa	n/a	5.7	n/a
Chronic Toxicity	TUc	n/a	181	n/a
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30253 of the California Code of Regulations. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.			

e. Ocean Plan Table B Effluent Limitations for Protection of Human Health: [5]

[5] The effluent limitations for constituents based on objectives for the protection of aquatic life and human health specified in Table B of the Ocean Plan are calculated using a Dm of 180:1 and the following Ocean Plan equation: Ce = Co + Dm (Co – Cs). "Dm" is the minimum probable initial dilution used to calculate effluent limitations for non-conventional and toxic pollutant parameters, expressed as parts seawater per part wastewater, "Co" is the water quality objective to be met at the completion of initial dilution, "Cs" is the background seawater concentration, and "Ce" is the effluent limitation.

1) Carcinogens

Constituent	***Units***	***30-day Average***
Benzidine	ug/l lbs/day	0.01249 0.0290
Chlordane[6]	ug/l lbs/day	0.00416 0.0097
3,3'-dichlorobenzidine	ug/l lbs/day	1.4661 3.3992
Hexachlorobenzene	ug/l lbs/day	0.0380 0.0881
PAHs[7]	ug/l lbs/day	1.5928 3.6929
PCBs[8]	ug/l lbs/day	0.0034 0.0080
TCDD equivalents[9]	ug/l lbs/day	0.000000706 0.000001637
Toxaphene	ug/l lbs/day	0.03801 0.0881

[6] *Chlordane* shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

[7] *PAHs* (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoroanthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

[8] *PCBs* (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

[9] *TCDD equivalents* shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below:

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

2. The discharge of wastewater to other than Discharge Serial No. 001 is prohibited, except in the event of an emergency. An emergency is a circumstance that precludes discharging all wastewater to Discharge Serial No. 001 despite proper operation and maintenance of the discharger's facilities. Such emergencies are limited to situations such as earthquake, flood, and acts of war or terrorism. In the event of an emergency, the discharger may discharge other than as required by the terms of this permit provided:

    a. The Regional Board Executive Officer and the EPA Director are notified of the pending discharge as soon as possible,

    b. The Executive Officer and the Director agree that an emergency exists,

    c. The discharger takes all steps required by the Executive Officer or the Director to minimize any harm resulting from the discharge,

    d. Discharges through Discharge Serial No. 002 (deactivated ocean outfall) will be maximized before wastewater is discharged through Discharge Serial No. 003 (overflow point to the Santa Ana River), and

    e. The discharger returns the discharge to compliance with the terms of this permit without delay.

3. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.

4. Waste discharged to the ocean must be essentially free of:

    a. Material that is floatable or will become floatable upon discharge.

    b. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.

    c. Substances which will accumulate to toxic levels in marine waters, sediments or biota.

    d. Substances that significantly decrease the natural light to benthic communities and other marine life.

    e. Materials that result in aesthetically undesirable discoloration of the ocean surface.

5. Waste effluents shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

6. Waste that contains pathogenic organisms or viruses should be discharged a sufficient distance from shellfishing and water-contact sports areas to maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with reasonable separation of the discharge point from the area of use must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human hazard should be used.

B. TOXICITY REQUIREMENTS:

1. Acute Toxicity

   a. Test Species and Methods

      The discharger shall conduct quarterly acute toxicity tests on flow-weighted 24-hour composite effluent samples. When conducting toxicity tests in accordance with a specified chronic test methods manual, if daily observations of mortality make it possible to also calculate acute toxicity for the desired exposure period and the dilution series for the toxicity test includes the acute IWC, such method may be used to estimate the 96-hour LC50. The presence of acute toxicity shall be estimated as specified in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995) using *Atherinops affinis* (topsmelt); and *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA 821-R-02-012, 2002), or *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA 821-R-02-014, 2002) using *Mysidopsis bahia* (mysid).

      If *Atherinops affinis* in the West Coast chronic test methods manual is not available, the presence of acute toxicity shall be estimated as specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA 821-R-02-012, 2002), or *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA 821-R-02-014, 2002) using *Menidia beryllina* (silversides).

      The discharger shall conduct acute toxicity test screening with a marine vertebrate species and a marine invertebrate species every 24 months for three consecutive months. The first screening shall be conducted in 2004, and rescreening shall be conducted at a different time of year from the previous year's screening. After each screening period, effluent monitoring shall be conducted using the most sensitive test species.

b. Definition of Acute Toxicity

The acute toxicity of the effluent shall be expressed and reported in TUa, where, TUa = 100/96-hour LC50. The Lethal Concentration, 50 Percent (LC50) is the estimate of the percent effluent concentration that causes death in 50 percent of the test population, in the time period prescribed by the toxicity test. In addition, LC50 and EC25 values in percent effluent shall also be reported. For this discharge, acute toxicity is defined as an exceedance of the acute toxicity effluent limitation specified in Discharge Specification A.1.d.

2. Chronic Toxicity

a. Test Species and Methods

The discharger shall conduct monthly chronic toxicity tests on flow-weighted 24-hour composite effluent samples. The presence of chronic toxicity shall be estimated as specified in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). If test organisms specified in the West Coast chronic test methods manual are not available, the presence of chronic toxicity shall be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA 821-R-02-014, 2002).

The discharger shall conduct chronic toxicity test screening with a marine vertebrate species, a marine invertebrate species, and a marine alga species, every 24 months for three consecutive months. The first screening shall be conducted in 2004, and rescreening shall be conducted at a different time of year from the previous year's screening. After each screening period, effluent monitoring shall be conducted using the most sensitive test species. If the most sensitive test species is/are not available, the presence of chronic toxicity shall be estimated using the second most sensitive test species from the toxicity test screening conducted for the current 24-month period. Such changes shall be noted on the discharge monitoring report (DMR)

b. Definition of Chronic Toxicity

The chronic toxicity of the effluent shall be expressed and reported in TUc, where TUc = 100/NOEC. The No Observed Effect Concentration (NOEC) is the highest effluent concentration to which organisms are exposed in a chronic test, that causes no observable adverse effect on the test organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are <u>not</u> statistically significantly different from the controls). In addition, NOEC and IC25/EC25 values in percent effluent shall also be reported. For this discharge, chronic toxicity is defined as an exceedance of the chronic toxicity effluent limitation specified in Discharge Specification A.1.d.

3. Quality Assurance

a. A series of five dilutions and a control shall be tested. The series shall include the instream waste concentration (IWC), two dilutions below the IWC, and two dilutions above the IWC (e.g., 12.5, 25, 50, 75, and 100 percent effluent, where IWC = 50). The acute IWC for this discharge is 17.5 percent effluent, and the chronic IWC for this discharge is 0.55 percent effluent.

b. If test organisms are not cultured in-house, concurrent testing with reference toxicants shall be conducted. If organisms are cultured in-house, monthly testing with reference toxicants shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as effluent toxicity tests (i.e., same test duration, etc.).

c. If either the reference toxicant test or the effluent test do not meet all test acceptability criteria as specified in the test methods manual, then the discharger must re-sample and re-test within approximately 14 days.

d. Chronic effluent and reference toxicant tests must meet the upper and lower bounds on test sensitivity, as determined by calculating the Percent Minimum Significant Difference (PMSD) for each test result. Test sensitivity bounds are specified in Table 3-6 of *Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program* (EPA/833-R-00-003, June 2000). There are five possible outcomes based on the PMSD result:

1) Unqualified Pass: The test's PMSD is within the bounds in Table 3-6 and there is no significant difference between the means for the control and the IWC treatment. The regulatory authority would conclude that there is no toxicity at the IWC concentration.

2) Unqualified Fail: The test's PMSD is larger than the lower bound (but not greater than the upper bound) in Table 3-6 and there is a significant difference between the means for the control and the IWC treatment. The regulatory authority would conclude that there is toxicity at the IWC concentration.

3) Lacks Test Sensitivity: The test's PMSD exceeds the upper bound in Table 3-6 and there is no significant difference between the means for the control and the IWC treatment. The test is considered invalid. The discharger must re-sample and re-test within approximately 14 days.

4) Lacks Test Sensitivity: The test's PMSD exceeds the upper bound in Table 3-6 and there is a significant difference between the means for the control and the IWC treatment. The test is considered valid. The regulatory authority would conclude that there is toxicity at the IWC concentration.

5) Very Small but Significant Difference: The relative difference (see Section 6.4.2 of EPA/833-R-00-003) between the means for the control and the IWC treatment is smaller than the lower bound in Table 3-6 and this difference is statistically significant. The test is acceptable. The NOEC is determined as described in Sections 6.4.2 and 6.4.3 of EPA/833-R-00-003.

e. Control and dilution water should be receiving water or lab water, as described in the test methods manual. If dilution water is different from culture water, then a second control using culture water shall also be tested.

4. Preparation of Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan

The discharger shall submit to the Regional Board and EPA an initial investigation toxicity reduction evaluation (TRE) workplan [approximately 1-2 pages] within 90 days of the effective date of this permit. This workplan shall describe steps that the discharger intends to follow in the event that toxicity (as defined) is detected, and should include at minimum:

a. A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;

b. A description of the facility's method of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in operation of the facility;

c. If a toxicity identification evaluation (TIE) is necessary, who (e.g., contract laboratory, etc.) will conduct the TIE.

5. Additional (Accelerated) Toxicity Testing

a. If toxicity (as defined) is detected, then the discharger shall conduct six additional tests, approximately every 14 days, over a 12-week period. Effluent sampling for the first test of the six additional tests shall commence within approximately 24 hours of receipt of the test results exceeding the acute and/or chronic effluent limitation(s);

b. However*, if implementation of the initial investigation TRE workplan indicates the source of toxicity* (e.g., a temporary plant upset), then the discharger shall conduct only the first test of the six additional tests required above. If toxicity (as defined) is not detected in this first test, the discharger may return to the normal sampling frequency required in M&RP No. R8-2004-0062. If toxicity (as defined) is detected in this first test, then Acute and Chronic Whole Effluent Toxicity Requirement B.6 shall apply.

c. If toxicity (as defined) is not detected in any of the six additional tests required above, then the discharger may return to the normal sampling frequency required in M&RP No. R8-2004-0062.

6. Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE)

   a. If toxicity (as defined) is detected in any of the six additional tests, then, based on an evaluation of the test results and additional available information, the Executive Officer and/or the Director may determine that the discharger shall initiate a TRE, in accordance with the discharger's initial investigation TRE workplan and *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA 833-B-99-002, 1999). Moreover, the discharger shall expeditiously develop a detailed TRE workplan which includes:

      1) Further actions to investigate/identify the cause(s) of toxicity;

      2) Actions the discharger has taken/will take to mitigate the impact of the discharge, to correct the noncompliance, and to prevent the recurrence of toxicity;

      3) An expeditious schedule under which these actions will be implemented.

   b. As part of this TRE process, the discharger may initiate a TIE using the test methods manuals and TIE Phase I (EPA/600/R-96/054, 1996), Phase II (EPA/600/R-92/080, 1993), and Phase III (EPA/600/R-92/081, 1993) manuals to identify the cause(s) of toxicity.

   c. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by Toxicity Requirement B.5, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE.

7. Reporting

   a. The discharger shall submit a full report of all toxicity test results, including any toxicity testing required by Toxicity Requirements B.5 and B.6, with the discharge monitoring report (DMR) for the month in which the toxicity tests are conducted. A full report shall consist of: (1) toxicity test results; (2) dates of sample collection and initiation of each toxicity test; (3) acute and/or chronic toxicity effluent limitations. Toxicity test results shall be reported according to the test methods manual chapter on Report Preparation. It is suggested that the discharger submit the data on an electronic disk in the Toxicity Standardized Electronic Reporting Form (TSERF) (*Standardized Electronic Reporting Format for Monitoring Effluent Toxicity: October 1994 Format*, State Water Resources Control Board, 1995).

      If the initial investigation TRE workplan is used to determine that additional (accelerated) toxicity testing is unnecessary, these results shall be submitted with the DMR for the month in which investigations conducted under the TRE workplan occurred.

b. Within approximately 14 days of receipt of test results exceeding an acute and/or chronic toxicity effluent limitation, the discharger shall provide written notification to the Regional Board and EPA of:

1) Findings of the TRE or other investigation to identify the cause(s) of toxicity;

2) Actions the discharger has taken/will take, to mitigate the impact of the discharge and to prevent the recurrence of toxicity;

3) When corrective actions, including a TRE, have not been *completed*, an expeditious schedule under which corrective actions will be implemented; or

4) The reason for not taking corrective action, if no action has been taken.

C. RECEIVING WATER LIMITATIONS:

1. The discharge of waste by the discharger shall not cause a violation of the Ocean Plan water quality objectives for ocean waters specified below. Compliance with these water quality objectives shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed.

2. Bacterial Characteristics

a. Water-Contact Standards

Within the Nearshore Zone (i.e., zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline) and Offshore Zone (i.e., waters between Nearshore Zone and limit of State waters), including all kelp beds, the following bacterial objectives shall be maintained throughout the water column:

1) Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).

2) The fecal coliform density based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.

b. Shellfish Harvesting Standards

Within the Nearshore Zone, the following bacterial objectives shall be maintained throughout the water column: The median total coliform density shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

c. Bacterial Assessment and Remedial Action Requirements

The requirements listed below shall be used to determine the occurrence and extent of any impairment of a beneficial use due to bacterial contamination; generate information which can be used in the development of an enterococcus standard; and provide the basis for remedial actions necessary to minimize or eliminate any impairment of a beneficial use.

Measurement of enterococcus density shall be conducted at all stations where measurements of total and fecal coliforms are required. In addition to the requirements of Receiving Water Limitation C.2.a, if a shore station consistently exceeds a coliform objective or exceeds a geometric mean enterococcus density of 24 organisms per 100 ml for a 30-day period or 12 organisms per 100 ml for a six-month period, the Regional Board may require the discharger to conduct or participate in a survey to determine if the discharge is the source of the contamination. The geometric mean shall be a moving average based on no less than five samples per month, spaced evenly over the time interval. When a sanitary survey identifies a controllable source of indicator organisms associated with a discharge of sewage, the Regional Board may require the discharger and any other responsible party identified by the Regional Board to control the source.

3. Physical Characteristics

a. Floating particulates and grease and oil shall not be visible.

b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

c. Natural light shall not be significantly reduced at any point outside the initial dilution zone as a result of the discharge of waste.

d. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

4. Chemical Characteristics

a. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.

b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

c. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.

d. The concentration of substances, set forth in Table B of the Ocean Plan, in marine sediments shall not be increased to levels which would degrade indigenous biota.

e. The concentration of organic materials in marine sediments shall not be increased to levels which would degrade marine life.

f. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.

g. The concentrations of substances, set forth in Table B of the Ocean Plan, shall not be exceeded in the area within the waste field where initial dilution is completed.

5. Biological Characteristics

a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.

b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

6. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

D. BIOSOLIDS/SLUDGE REQUIREMENTS:

1. General Requirements

   a. All biosolids generated by the discharger shall be used or disposed of in compliance with applicable portions of 40 CFR 257, 258, and 503, and any applicable portions of the California Biosolids General Order (*State Water Resources Control Board Water Quality Order No. 2000-10-DWQ, General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities*), or site-specific waste discharge requirements issued by Regional Boards for land application sites in jurisdiction(s) in which biosolids from OCSD's treatment facilities are applied.

   b. The discharger is responsible for assuring that all biosolids produced by OCSD's treatment facilities are used or disposed of in accordance with these rules, whether the discharger uses or disposes of the biosolids, itself, or transfers them to another party for further treatment, use, or disposal. The discharger is responsible for informing subsequent preparers, appliers, and disposers of the requirements that must be met under these rules.

   c. Duty to mitigate: The discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.

   d. No biosolids shall be allowed to enter wetlands or other waters of the United States.

   e. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater. No biosolids, whether Class B or Class A, shall be land applied in excess of the agronomic rate, except when authorized in writing by EPA for specific land reclamation projects.

   f. Biosolids treatment, storage, and use or disposal shall be performed in a manner as to minimize nuisances, such as objectionable odors or flies.

   g. The discharger shall assure that haulers transporting biosolids off site for treatment, storage, use, or disposal take all necessary measures to keep the biosolids contained.

   h. If biosolids are stored for over two years from the time they are generated, the discharger must ensure compliance with all requirements for surface disposal under 40 CFR 503 Subpart C, or must submit a written notification to EPA with the information in 40 CFR 503.20(b) demonstrating the need for longer temporary storage.

i. Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from materials in the site to escape from the site. Adequate protection is defined as protection from at least a 100-year storm and from the highest tidal stage that may occur.

2. Inspection and Entry

The EPA, Regional Board, and other Regional Boards and State agencies where the discharger's biosolids are applied and/or treated, or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the discharger, directly or through contractual arrangements with their biosolids management contractors, to:

a. Enter upon all premises where biosolids produced by OCSD treatment facilities are treated, stored, used, or disposed, either by the discharger or by another party to whom OCSD transfers the biosolids for treatment, storage, use, or disposal;

b. Have access to and copy any records that must be kept under the conditions of this permit or 40 CFR 503 by the discharger or by another party to whom OCSD transfers the biosolids for further treatment, storage, use, or disposal;

c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in biosolids treatment, storage, use, or disposal by the discharger, or by another party to whom OCSD transfers the biosolids for treatment, use, or disposal.

3. Monitoring Requirements

a. A representative sample shall be collected and analyzed on a monthly basis for pollutants required under the applicable portions of 40 CFR 503, organic nitrogen, and ammonium nitrogen. The results shall be reported on a 100% dry weight basis.

b. Prior to land application, the discharger shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 CFR 503.32. If pathogen reduction is demonstrated using a Process to Significantly/Further Reduce Pathogens, the discharger shall maintain daily records of the operating parameters used to achieve this reduction.

c. For biosolids that are land applied or placed in a surface disposal site, the discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR 503.33(b).

d. Biosolids shall be monitored semi-annually for all pollutants listed under Section 307(a) of the CWA. Results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis.

e. For all Class B biosolids and all Class A biosolids except for composted Class A biosolids, that are land-applied, plant available nitrogen (PAN) in biosolids shall be calculated and field loadings of PAN calculated from this.

4. Notification Requirements

The discharger, either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following notification requirements:

a. Notification of non-compliance: The discharger shall notify EPA and the applicable Regional Board or State agency of any non-compliance within 24 hours, by phone or e-mail, if the non-compliance may seriously endanger public health or the environment. A written report shall also be submitted within 5 working days of knowing the non-compliance. For other instances of non-compliance, the discharger shall notify the EPA and Regional Board of the non-compliance in writing within 5 working days of becoming aware of the non-compliance. The discharger shall require their biosolids management contractors to notify the EPA and Regional Board of any non-compliance within the same timeframes.

b. The following is required for all Class B biosolids and Class A biosolids except for composted Class A biosolids:

1) If biosolids are shipped to another State or to Indian Lands, the discharger must send 30 days prior notice of the shipment to the EPA and permitting authorities in the receiving State or Indian Land.

2) The discharger shall notify the EPA and applicable State agency by e-mail, or have its contractors notify the EPA and applicable State agency, at least 24 hours prior to changing the field being applied to, of the field change, including location of new field, rate of application, and crop to be planted on that field.

3) Following completion of application to any field, in the case where actual plant available nitrogen (PAN) exceeds targeted PAN, the discharger shall submit or have its contractor submit an explanation of the exceedance within 7 days of completion of the field.

c. If the discharger or the persons it contracts with for biosolids use or disposal receive complaints of health problems associated with biosolids treatment, use, or disposal, the EPA and applicable County Public Health Department staff shall be notified of complaints within 48 hours.

d. The discharger shall notify the EPA and applicable State agencies at least 60 days prior to starting a new use or disposal practice.

5. Reporting Requirements

a. The discharger shall submit an annual biosolids report to the EPA, Regional Board, and all other Regional Boards, State agencies, and Tribal agencies where biosolids are applied, by February 19 of each year, for the period covering the previous calendar year. The report shall include:

1) The amount of biosolids generated that year, in dry metric tons, and the amount used or disposed by each use/disposal practice. For contracted use or disposal, the volume taken by each contractor shall be reported.

2) The results of all monitoring required under Monitoring Requirements, above. All results must be reported on a 100% dry weight basis. Any fecal coliform analyses shall include results of individual grab samples and calculated geometric means (for Class B biosolids) for the sampling period. Locations of sample collection shall be reported.

3) Documentation of those operational parameters used to demonstrate compliance with pathogen reduction and vector attraction reduction, and certifications.

4) For sites to which Class B biosolids or Class A biosolids (except for Class A compost) have been applied: name of each field; location, ownership, size in acres; actual dates of applications, seedings, harvesting; number of truckloads to each field; actual tonnage applied to field, in actual and dry weight; calculated Plant Available Nitrogen before and after application; copies of applier's certifications of management practices; copies of applier's certifications of site restrictions.

5) Reports shall be submitted to:

Regional Biosolids Coordinator
U.S. Environmental Protection Agency
Region 9, WTR-7
75 Hawthorne Street
San Francisco, CA 94105-3901

California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

E. PRETREATMENT REQUIREMENTS:

1. The discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR 403, including any subsequent regulatory revisions. Where 40 CFR 403 or subsequent revision places mandatory actions upon the discharger as Control Authority but does not specify a timetable for completion of the actions, the discharger shall complete the required actions within six months from the issuance date of this permit or the effective date of the 40 CFR 403 revisions, whichever comes later. For violations of pretreatment requirements, the discharger shall be subject to enforcement actions, penalties, fines and other remedies by the EPA or other appropriate parties, as provided in the CWA, and by the State under the Porter-Cologne Water Quality Control Act. The EPA and State may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the CWA and the Porter-Cologne Water Quality Control Act.

2. The discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d) and 402(b) of the CWA with timely, appropriate and effective enforcement actions. The discharger shall require all nondomestic users to comply with Federal Categorical Standards and shall take enforcement actions against those users who do not comply with the standards. Such enforcement actions shall be consistent with an enforcement response plan, developed pursuant to 40 CFR 403.8(f)(5). The discharger shall ensure that all nondomestic users subject to the Federal Categorical Standards achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.

3. The discharger shall perform the pretreatment functions as required in 40 CFR 403 including, but not limited to:

   a. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);

   b. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;

   c. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and

   d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

4. The discharger shall submit annually to the EPA and Regional Board a report describing its pretreatment activities over the previous year. In the event the discharger is not in compliance with any conditions or requirements of this permit, then the discharger shall also include the reasons for noncompliance and state how and when the discharger shall comply with such conditions and requirements. This annual report shall cover operations from July 1 through June 30 and is due on October 31 of each year. The report shall contain, but not be limited to, the following information:

a. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the discharger's influent and effluent for those pollutants the EPA has identified under Section 307(a) of the CWA which are known or suspected to be discharged by nondomestic users. This will consist of wastewater sampling and analysis in accordance with the minimum frequency of analysis stated in M&RP No. R8-2004-0062. The discharger is not required to sample and analyze for asbestos. The discharger shall also provide any influent or effluent monitoring data for nonpriority pollutants which the discharger believes may be causing or contributing to interference or pass through. Sampling and analysis shall be performed with the techniques prescribed in 40 CFR 136.

b. A discussion of Upset, Interference or Pass Through incidents, if any, at Reclamation Plant No. 1 and/or Treatment Plant No. 2, which the discharger knows or suspects were caused by nondomestic users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the nondomestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through or interference;

c. An updated list of the discharger's Significant Industrial Users (SIUs) including their names and addresses, and a list of deletions, additions and SIU name changes keyed to the previously submitted list. The discharger shall provide a brief explanation for each change. The list shall identify the SIUs subject to Federal Categorical Standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limits;

d. The discharger shall characterize the compliance status of each SIU by providing a list or table which includes the following information:

1) Name of the SIU;
2) Category, if subject to Federal Categorical Standards;
3) The type of wastewater treatment or control processes in place;
4) The number of samples taken by the POTW during the year;
5) The number of samples taken by the SIU during the year;
6) For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;
7) A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits;
8) Whether the facility is in significant noncompliance (SNC) as defined at 40 CFR 403.8(f)(2)(vii) at any time during the year; and
9) A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action, final compliance date, and the amount of fines and penalties collected, if any. Describe any proposed actions for bringing the SIU into compliance;

e. A brief description of any programs the discharger implements to reduce pollutants from nondomestic users that are not classified as SIUs;

f. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning the program's administrative structure, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;

g. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases; and

h. A summary of activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 CFR 403.8(f)(2)(vii).

5. The discharger shall submit semi-annual SIU compliance status reports to the EPA and Regional Board. The reports shall cover the periods from July 1 through December 31, and January 1 through June 30. The report for the period from July 1 through December 31 shall be submitted by March 31. The report for the period from January 1 through June 30 shall be submitted by September 30, or may be included in the annual report. The reports shall contain:

a. The name and address of all SIUs which violated any discharge or reporting requirements during that reporting period;

b. A description of the violations including whether any discharge violations were for categorical standards or local limits;

c. A description of the enforcement or other actions that were taken to remedy the noncompliance; and

d. The status of active enforcement and other actions taken in response to SIU noncompliance identified in previous reports.

F. COMPLIANCE DETERMINATION:

1. The 12-month average shall apply as a moving arithmetic mean of daily values for any 365-day period in which daily values represent grab or flow-weighted average concentrations within a 24-hour period.

2. The 6-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent grab or flow-weighted average concentrations within a 24-hour period.

3. The 30-day average shall apply as an arithmetic mean of daily values for any 30-day period in which daily values represent grab or flow-weighted average concentrations within a 24-hour period.

4. The 7-day average shall apply as an arithmetic mean of daily values for any 7-day period in which daily values represent grab or flow-weighted average concentrations within a 24-hour period.

5. The daily maximum shall apply as a maximum of daily values for any 1-day period in which daily values represent grab or flow-weighted average concentrations within a 24-hour period.

6. The instantaneous maximum shall apply as a maximum of daily values for any 1-day period in which daily values represent grab or flow-weighted average concentrations with a 24-hour period.

7. If only one sample is collected during the time period associated with an effluent limitation or water quality objective (e.g., 30-day average or 6-month median), the single measurement shall be used to determine compliance for the entire time period.

8. Compliance with mass emission effluent limitations shall be obtained from the following calculation for any calendar day: Mass Emission Rate (lbs/day) = $8.34 \times C \times Q$; where C and Q are the constituent concentration in mg/l and flow rate in MGD, respectively.

9. *Compliance with Single-Constituent Effluent Limitations*. The discharger is out of compliance with an effluent limitation if the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level.

10. *Compliance with Effluent Limitations Expressed as a Sum of Several Constituents*. The discharger is out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCBs) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

11. *Multiple Sample Reduction*. The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported Minimum Level). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple samples. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

12. Pursuant to 40 CFR 401.17, the discharger shall be in compliance with the pH limitation specified under Discharge Specification A.1.b, provided that both of the following conditions are satisfied: (1) the total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

13. For the Offshore Zone, compliance with Receiving Water Limitation C.2.a.2 shall be determined by sampling and analyzing for *Escherichia coli* using the Colilert™ Method[10]. When this method is used in lieu of a standard fecal coliform test, values for *E. coli* shall be multiplied by 110% to determine compliance with fecal coliform receiving water limitations.

14. [40 CFR 122.41(n)] *Upset* means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. *Effect of an upset*. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of the *conditions necessary for a demonstration of upset* (see below) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. *Conditions necessary for a demonstration of upset*. A discharger who wishes to establish the affirmative defense of an upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

    a. An upset occurred and that the discharger can identify the cause(s) of the upset;

    b. The permitted facility was at the time being properly operated; and

    c. The discharger submitted notice of the upset as required under Required Notices and Reports provision G.5.f.2; and

    d. The discharger complied with any remedial measures required under Provision H.13.

    Burden of proof. In any enforcement proceeding the discharger seeking to establish the occurrence of upset has the burden of proof.

[10] Because of sample holding time considerations, it is not practical to require a standard fecal coliform test for samples collected in the Offshore Zone. Studies confirm that Colilert™ *E. coli* results are 90% of fecal coliform densities measured using a standard fecal coliform test.

G. REQUIRED NOTICES AND REPORTS:

1. [40 CFR 122.41 (k)/CWA (309(c)(4)] *Signatory requirement.* All applications, reports, or information submitted to the Executive Officer and/or Director shall be signed and certified. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or by both. For the second conviction, punishment shall be by a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. The requirements of 40 CFR 122.22 are incorporated into this permit by reference.

2. [40 CFR 122.41.(h)] *Duty to provide information.* The discharger shall furnish to the Executive Officer and/or the Director, within a reasonable time, any information which the Executive Officer and/or Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The discharger shall also furnish to the Executive Officer and/or Director upon request, copies of records required to be kept by this permit.

3. Except for data determined to be confidential under Section 308 of the CWA, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Regional Board and EPA. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and Section 13387 of the CWC.

4. [40 CFR 122.41(j)(5) *Monitoring and records.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring devise or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

5. [40 CFR 122.41(l)] *Reporting requirements.*

   a. *Planned changes.* The discharger shall give notice to the Executive Officer and the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

      1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

3) The alteration or addition results in a significant change in the discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. *Anticipated noncompliance.* The discharger shall give advance notice to the Executive Officer and the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. *Transfers.* This permit is not transferable to any person except after notice to the Executive Officer and Director. The Executive Officer and Director may require modification or revocation and reissuance of the permit to change the name of the discharger and incorporate such other requirements as may be necessary under the CWA. The provisions of 40 CFR 122.61 are incorporated into this permit by reference.

d. *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

1) Monitoring results must be reported on a DMR or forms provided by the Executive Officer and/or the Director for reporting results of monitoring of sludge use or disposal practices.

2) If the discharger monitors any pollutant more frequently than required by this permit using test procedures approved under 40 CFR 136 or, in the case of sludge use or disposal, approved under 40 CFR 503, or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Executive Officer and/or the Director.

3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit by the Executive Officer and the Director.

e. *Compliance schedules*. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

f. *Twenty-four hour reporting.* The discharger shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally to the Executive Officer (951/782-4130), EPA (415/972-3505), and, if appropriate, the Office of Emergency Services (800/852-7550), within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within 5 working days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following information shall be included as information which must be reported within 24 hours under this paragraph:

1) Any unanticipated bypass which exceeds any effluent limitation in this permit [See 40 CFR 122.41(m)(3)(ii)];

2) Any upset which exceeds any effluent limitation in the permit;

3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Executive Officer and the Director in the permit to be reported with 24 hours [See 40 CFR 122.44(g)].

4) The Executive Officer and/or the Director may waive the written report on a case-by-case basis for reports under Required Notices and Reports provision G.5.f if the oral report has been received within 24 hours.

g. *Other noncompliance.* The discharger shall report all instances of noncompliance not reported under Required Notices and Reports provision G.5.d-f, at the time monitoring reports are submitted. The reports shall contain the information listed in Required Notices and Reports provision G.5.f.

h. *Other information.* Where the discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Executive Officer and/or Director, it shall promptly submit such facts or information.

6. [40 CFR 122.42(b)] *Publicly owned treatment works*. The discharger must provide adequate notice to the Executive Officer and the Director of the following:

a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Section 301 or 306 of the CWA if it were directly discharging those pollutants; and

b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of this permit.

c. For purposes of Required Notices and Reports provision G.6.a-b, adequate notice shall include information on (1) the quality and quantity of effluent introduced into the POTW, and (2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

7. The discharger shall file with the Regional Board within 120 days after the effective date of this permit an updated technical report on the discharger's preventive (failsafe) and contingency (response and cleanup) plans for controlling accidental discharges and for minimizing the effect of such events. This technical report shall:

   a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment outage, and failure of process equipment, tanks, and collection system sewer pipes and pump stations should be considered;

   b. Evaluate the effectiveness of present facilities and procedures and when they become operational. Describe facilities and procedures needed for effective preventive and contingency plans;

   c. Describe any new facilities and procedures needed. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational;

   d. Describe proposed and completed training programs and schedules to train and familiarize plant operating personnel with the discharger's preventative (failsafe) and contingency (response and cleanup) plans for controlling accidental discharges and for minimizing the effects of such events. [Sections 13267(b) and 13268 of the CWC]

8. The discharger shall file with the Regional Board within 180 days of the effective date of this permit an updated Storm Water Management Plan.

9. The discharger shall file a written report with the Regional Board within ninety (90) days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy making body is adequately informed about it. The report shall include:

   a. Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for the day;

   b. The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of the facilities; and

c. The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for this waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units. [Sections 13260, 13267(b), and 13268 of the CWC]

10. The discharger shall file with the Regional Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:

a. Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste;

b. Significantly changing the disposal method or location, such as changing the disposal to another drainage area or waterbody;

c. Significantly changing the method of treatment;

d. Increasing the treatment plant design capacity beyond that specified in this Order and permit.

H. PROVISIONS:

1. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, or amendments thereto. This Order and NPDES permit shall become effective 33 days from the date of signature by the EPA Director, on October DATE, 2004.

2. Order No. 98-5 and M&RP No. 98-5, as modified by Order No. R8-2002-0055, are hereby rescinded.

3. This permit expires November DATE, 2009. The discharger must file a Report of Waste Discharge in accordance with Title 23, Division 3, Chapter 9 of the CCR not later than 180 days in advance of such expiration date. The Report of Waste Discharge shall serve as the application for issuance of new waste discharge requirements. [40 CFR 122.41(b)] *Duty to reapply.* If the discharger wishes to continue an activity regulated by this permit after the expiration date of this permit, the discharger must apply for and obtain a new permit.

4. The discharger shall provide safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharger shall comply with the terms and conditions of this permit. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means.

5. The discharger shall comply with M&RP No. R8-2004-0062.

6. The discharger shall maintain a copy of this permit at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.

7. [40 CFR 122.41(a)] *Duty to comply.* The discharger must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the CWA and the CWC and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Subparagraphs (1), (2), and (3) of 40 CFR 122.41(a) are incorporated into this permit by reference.

8. The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby. [Section 512 of the CWA]

9. [40 CFR 122.41(g)] *Property rights*. This permit does not convey any property rights of any sort, or any exclusive privilege.

10. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from its liabilities under federal, State, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

11. In the event of any change in control or ownership of land or waste discharge facility presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Board and EPA.

12. Neither the treatment nor the discharge of wastes shall cause a nuisance or pollution as defined in Section 13050 of the CWC.

13. [40 CFR 122.41(d)] *Duty to mitigate.* The discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

14. The discharger shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

15. [40 CFR 122.41(c)] *Need to halt or reduce activity not a defense.* It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

16. The discharger's wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Grade of Operator Certification, Section 3680, Article 3, Chapter 26, Division 3, Title 23, CCR. The discharger shall report annually to the Regional Board and EPA a roster of such plant personnel, including job titles, duties, and level of State certification for each individual.

17. [40 CFR 122.41(m)] *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility. *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. *Bypass not exceeding limitations*. The discharger may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is essential maintenance to assure efficient operation. These bypasses are not subject to Provision H.17.a-b (see below).

    a. *Notice*:

        1) *Anticipated bypass*. If the discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

        2) *Unanticipated bypass.* The discharger shall submit notice of an unanticipated bypass as required in Required Notices and Reports provision G.5.f.

    b. *Prohibition of bypass*:

        1) Bypass is prohibited, and the Executive Officer and the Director may take enforcement action against the discharger for bypass, unless:

            a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

            b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment down time or preventive maintenance; and

            c) The discharger submitted notices as required under Provision H.17.a.

2) The Executive Officer and the Director may approve an anticipated bypass, after considering its adverse effects, if the Executive Officer and the Director determine that it will meet the three conditions listed in Provision H.17.b.1.

18. [40 CFR 122.41(e)] *Proper operation and maintenance.* The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a discharger only when the operation is necessary to achieve compliance with the conditions of this permit.

19. The discharger shall develop an "Operation and Maintenance Manual" (O&M Manual). If an O&M Manual has been developed, the discharger shall update it as necessary to conform with latest plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:

a. Description of the treatment plant table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.

b. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

c. Description of laboratory and quality assurance procedures.

d. Process and equipment inspection and maintenance schedules.

e. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharger will be able to comply with the terms and conditions of this permit.

f. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

20. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer and the Director.

21. [40 CFR 122.41(i)] *Inspection and entry*. The discharger shall allow the Executive Officer and/or the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

    d. Photograph, sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

22. Pollutant Minimization Program

    a. Pollutant Minimization Program Goal

    The goal of the Pollutant Minimization Program (PMP) is to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures, in order to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The completion and implementation of a PMP, required in accordance with Section 13263.3(d) of the CWC will fulfill the PMP requirements of this permit provision.

    b. Determining the Need for a PMP

        1) The discharger must develop and conduct a PMP if all of the following conditions are true: (a) the calculated effluent limitation is less than the reported ML; (b) the concentration of the pollutant is reported as DNQ; and (c) there is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.

        2) Alternatively, the discharger must develop and conduct a PMP if all of the following conditions are true: (a) the calculated effluent limitation is less than the MDL; (b) the concentration of the pollutant is reported as ND; and (c) there is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.

c. Elements of a PMP

The PMP program shall include actions and submittals acceptable to the Regional Board and EPA including, but not limited to, the following:

1) An annual review and semi-annual monitoring of potential sources of the reportable pollutant, which may include fish tissue monitoring and other bio-uptake sampling;

2) Quarterly monitoring for the reportable pollutant in the influent to the wastewater treatment system;

3) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant in the effluent at or below the calculated effluent limitation;

4) Implementation of appropriate cost-effective control measures for the pollutant, consistent with the control strategy; and

5) An annual status report that shall be sent to the Regional Board and EPA including: (a) all PMP monitoring results for the previous year; (b) a list of potential sources of the reportable pollutant; (c) a summary of all action taken in accordance with the control strategy; and (d) a description of actions to be taken in the following year.

23. Any significant change in waste flow shall be cause for reevaluating effluent limitations.

24. Ocean Plan Discharge Prohibitions:

a. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

b. Waste shall not be discharged to designated Areas of Special Biological Significance.

c. Pipeline discharge of sludge to the ocean is prohibited by federal law; the discharge of municipal and industrial waste sludge directly to the ocean, or into a waste stream that discharges to the ocean is prohibited by the Ocean Plan. The discharge of sludge digester supernatant directly to the ocean, or to a waste stream that discharges to the ocean without further treatment, is prohibited. The treatment, use and disposal of sewage sludge shall be carried out in the manner found to have the least adverse impact on the total natural and human environment.

d. The by-passing of untreated wastes containing concentrations of pollutants in excess of those of Table A or Table B of the Ocean Plan to the ocean is prohibited.

I. SPECIAL PROVISIONS:

1. The discharger will continue to implement its existing nonindustrial source control program and public education program that have been in effect since 1986. The nonindustrial source control program will be supplemented with an updated survey of industrial and nonindustrial contaminant sources. These programs are described in *Nonindustrial Source Control Program - Final Report* (CSDOC, 1987).

2. To address the uncertainty due to potential increases in toxic pollutant loadings from the discharge to the marine environment during the five-year permit term, and to establish a framework for evaluating the need for an antidegradation analysis to determine compliance with State and federal antidegradation requirements at the time of permit reissuance, 12-month average mass emission benchmarks have been established for the discharge (see M&RP No. R8-2004-0062). These mass emissions benchmarks are calculated based on the EPA's evaluation of 1990 through 1994 effluent concentrations, using the concentration associated with the 95th percentile of the 4-day average distribution of daily effluent concentrations and the discharger's projected end-of-permit flow of 278 MGD. These mass emission benchmarks are not enforceable water quality based effluent limitations. They may be re-evaluated and revised during the five-year permit term.

3. The discharger shall make monitoring data accessible to the public via the Internet. By January 1, 2005, the discharger shall submit an updated report that identifies the discharger's plans and activities for making monitoring data accessible to the public via the Internet. This report shall be updated as appropriate to include changes in implementation schedules. The Regional Board shall be informed of any change, in writing, within 30 days of the change.

J. PERMIT RE-OPENING, REVISION, REVOCATION, AND REISSUANCE:

1. [40 CFR 122.41(f)] *Permit actions*. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

2. This permit may be reopened and modified in accordance with the requirements set forth at 40 CFR 122 and 124 to:

   a. Address any changes in State or federal plans, policies or regulations which would affect the quality requirements for the discharges (e.g., Ocean Plan updates, BEACH Act regulations, etc.);

b. Include effluent limitations for pollutants determined to be present in significant amounts in the discharge;

c. Include appropriate conditions or limitations to address demonstrated effluent toxicity based on newly available information;

d. Re-evaluate the need for Ocean Plan Table B water quality based effluent limitations for protection of human health based on newly available information.

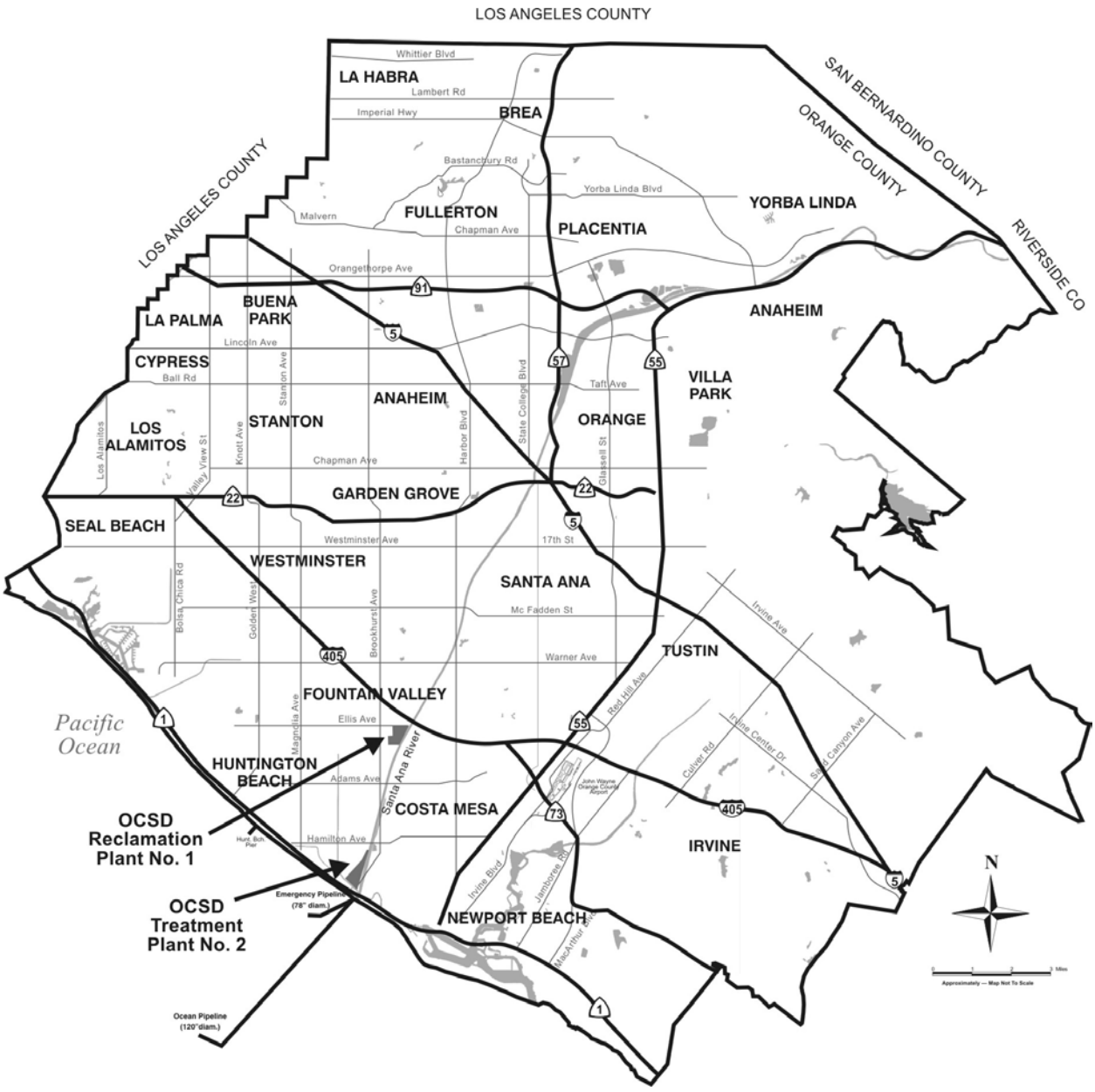
e. Revise mass emission benchmarks contained in M&RP No. R8-2004-0062.

3. M&RP No. R8-2004-0062 may be modified by the Executive Officer and EPA to enable the discharger to participate in comprehensive regional monitoring activities conducted in the Southern California Bight during the term of this permit. The intent of regional monitoring activities is to maximize the efforts of all monitoring partners using a cost-effective monitoring design and to best utilize the pooled scientific resources of the region. During these coordinated monitoring efforts, the discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of wastewater discharges to the Southern California Bight. Anticipated modifications to the monitoring program will be coordinated so as to provide a comprehensive picture of the ecological and statistical significance of monitoring results and to determine cumulative impacts of various pollutant sources. If predictable relationships among the biological, water quality and effluent monitoring variables can be demonstrated, it may be appropriate to decrease the discharger's monitoring effort. Conversely, the monitoring program may be intensified if it appears that the objectives cannot be achieved through the discharger's existing monitoring program. These changes will improve the overall effectiveness of monitoring in the Southern California Bight. Minor changes may be made without further public notice.

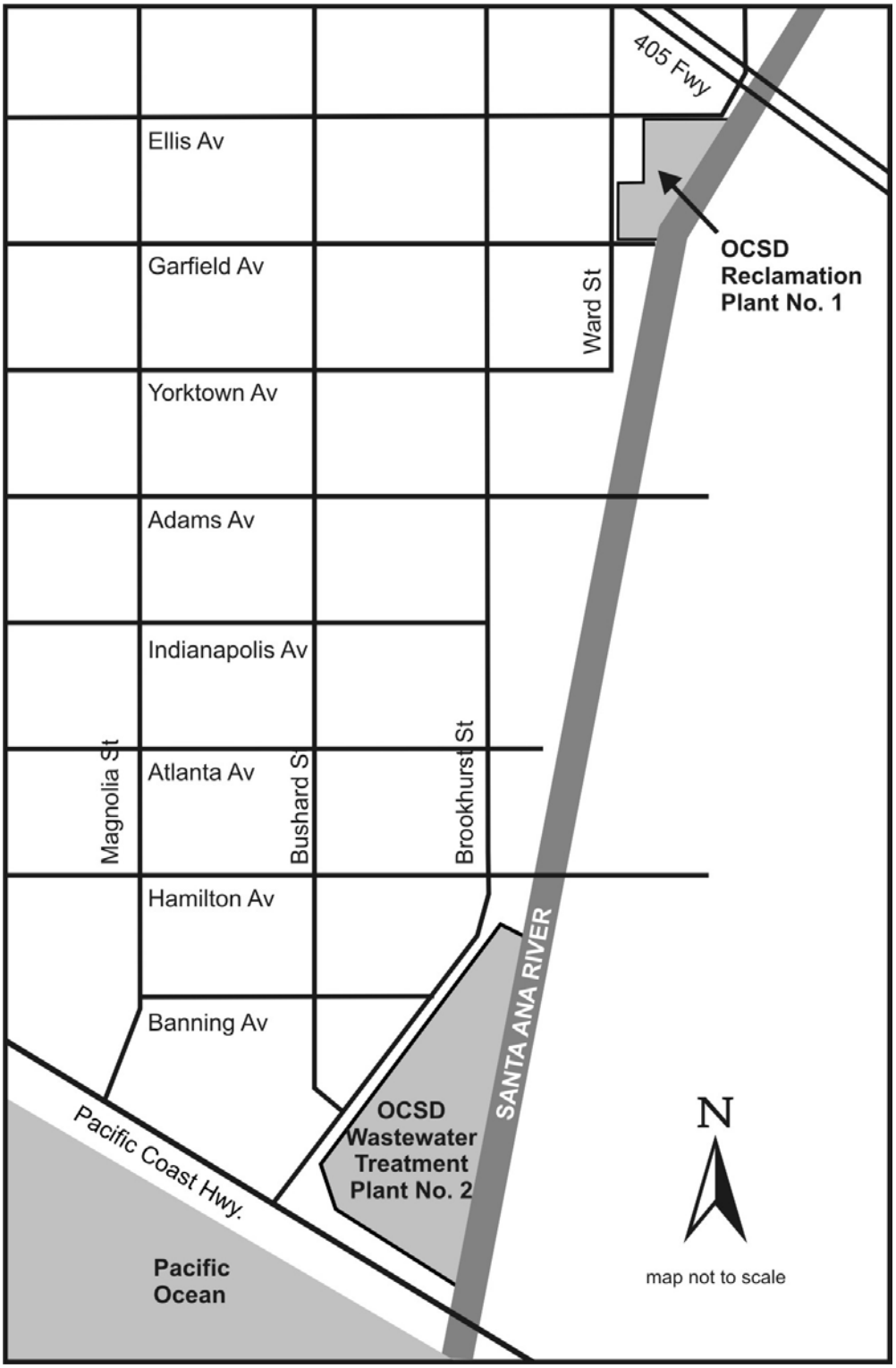
4. This permit may be modified, or revoked and reissued, based on the results of Magnuson-Stevens Fishery Conservation and Management Act and/or Endangered Species Act Section 7 consultation(s) with the National Marine Fisheries Service and/or U.S. Fish and Wildlife Service.

5. The Regional Board may reopen these Waste Discharge Requirements to consider making conforming changes to Order No. R8-2004-0062 in the event the EPA issues, after September 17, 2004, a version of NPDES Permit No. CA0110604 that contains revisions based on its consideration of comments timely submitted.

ATTACHMENT "A"



ATTACHMENT "A"



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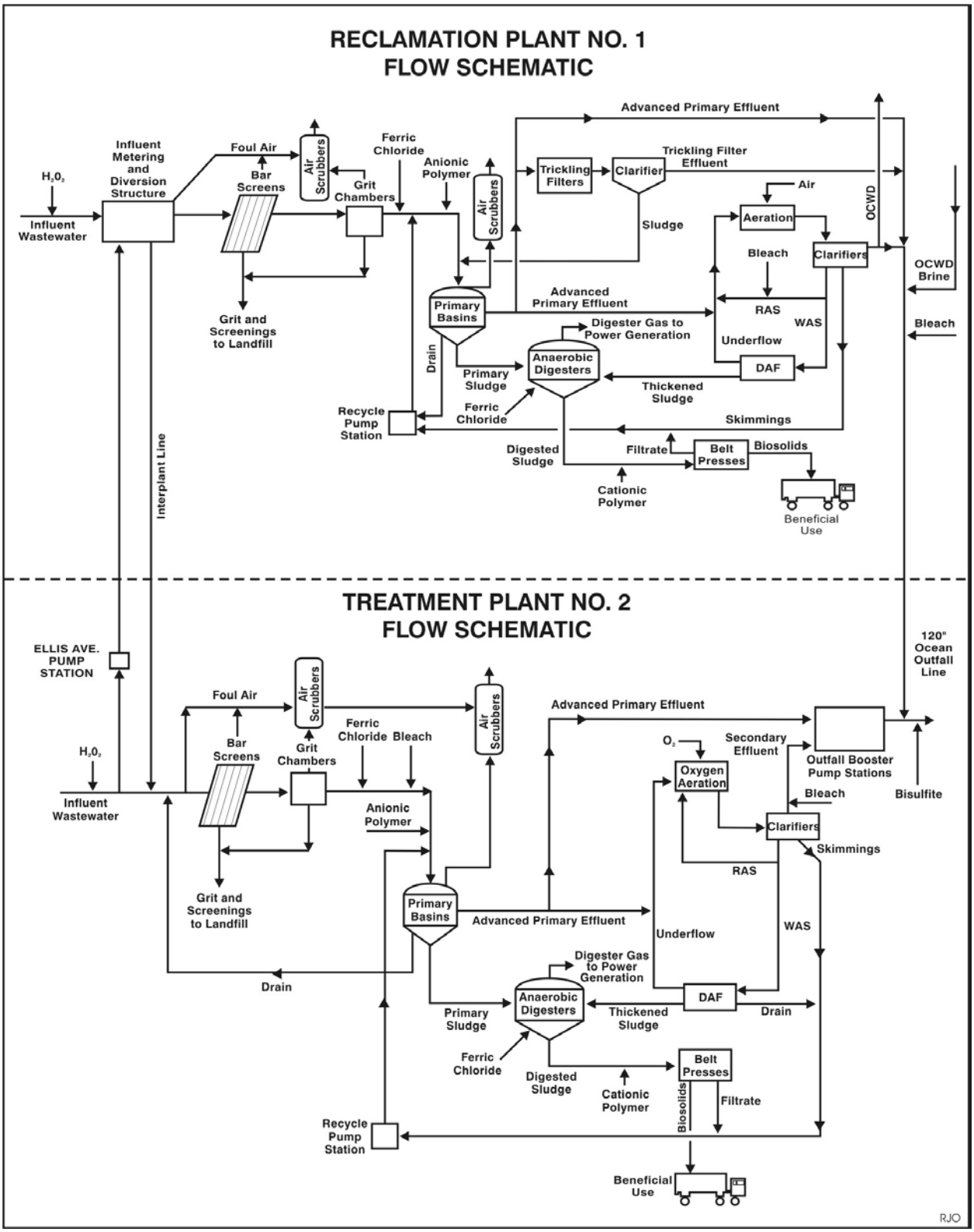
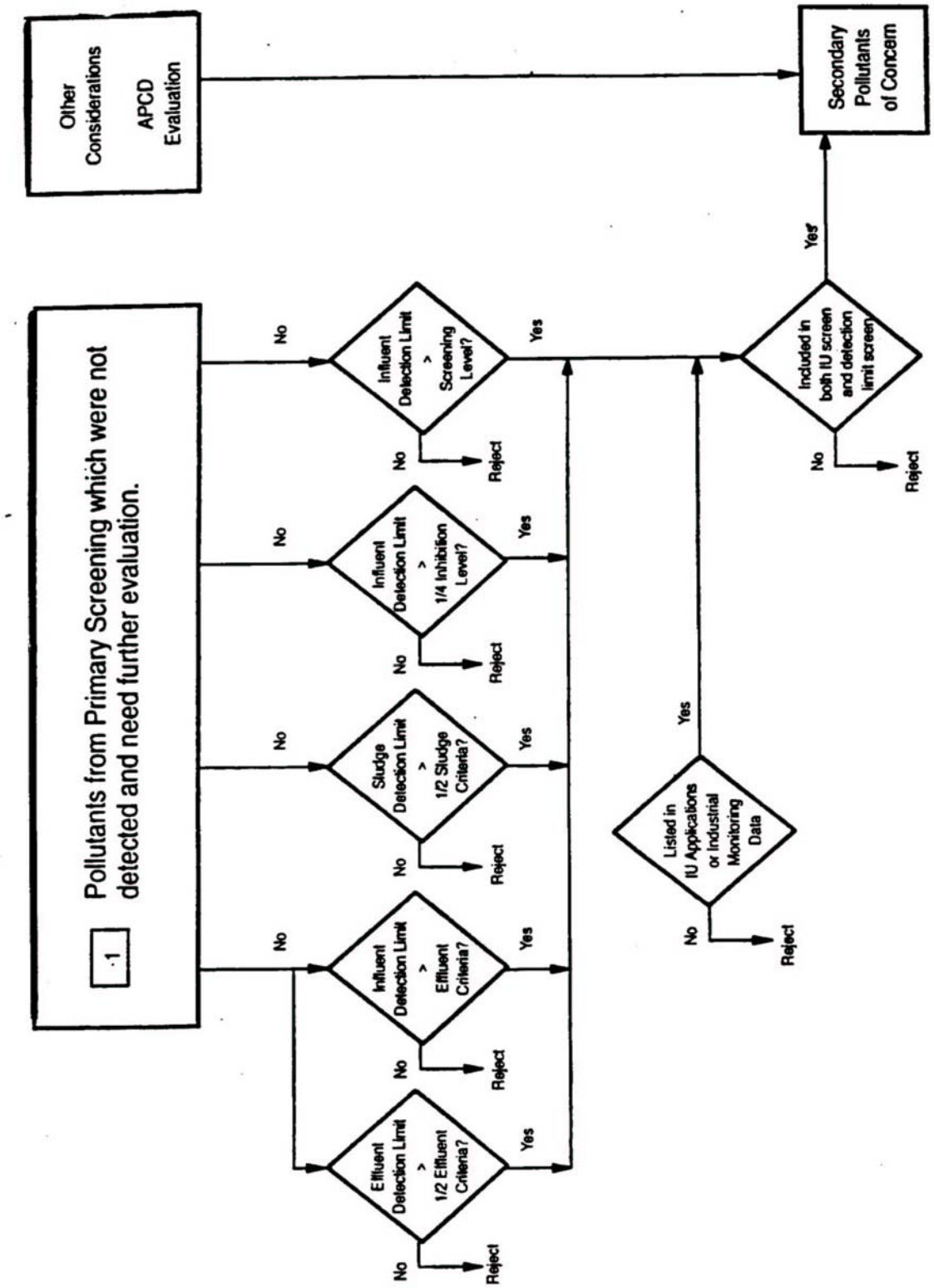
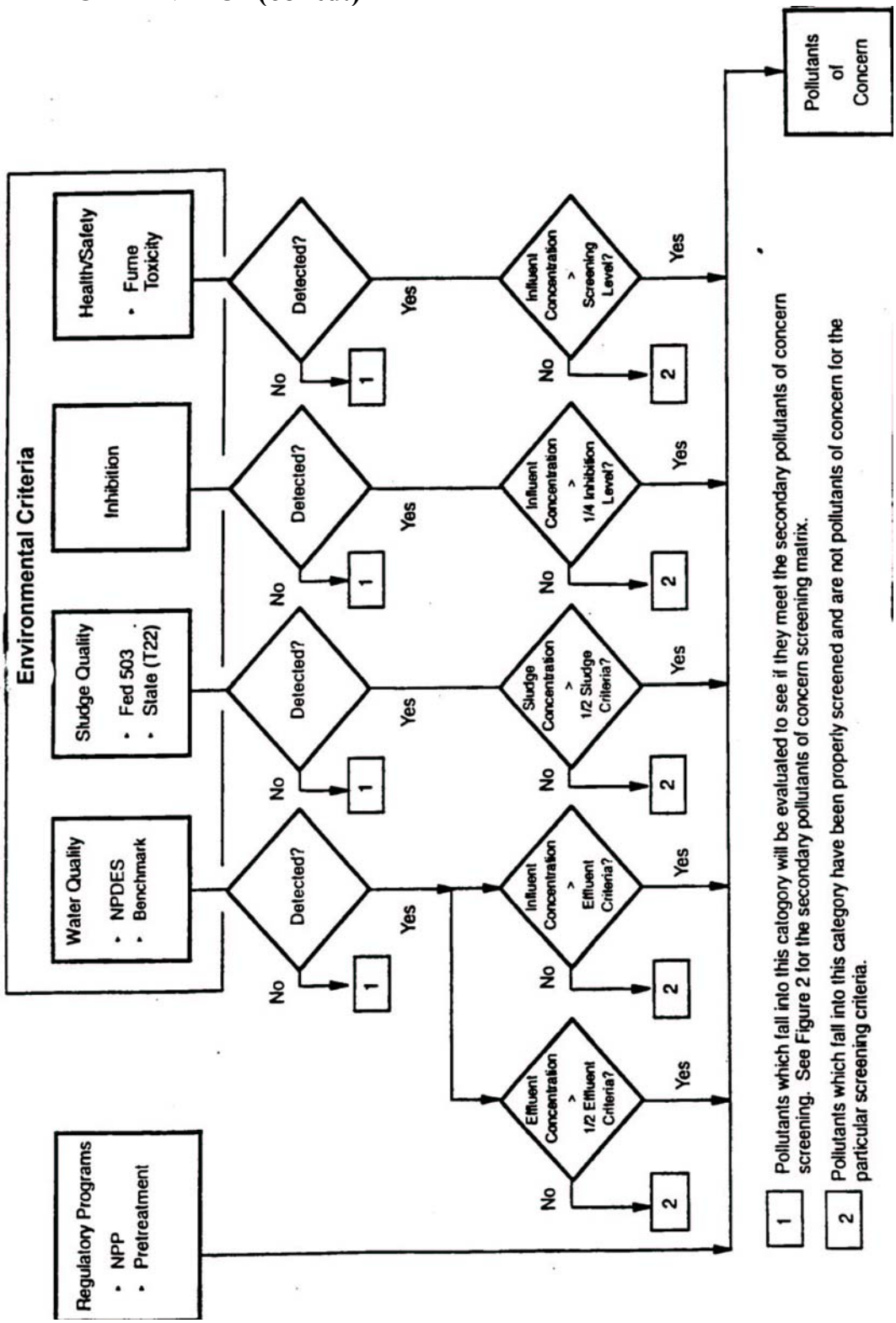


ATTACHMENT "C"



ATTACHMENT "C" (contd.)



I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of Order No. R8-2004-0062 adopted by the California Regional Water Quality Control Board, Santa Ana Region, on _____ , 2004.

_____
Gerard J. Thibeault, Executive Officer
California Regional Water Quality Control Board
Santa Ana Region

I, Alexis Strauss, Director, do hereby certify that the foregoing is a full, true, and correct copy NPDES Permit No. CA0110604 issued by the U.S. Environmental Protection Agency Region IX, on _____ , 2004.

_____
Alexis Strauss, Director
Water Division
U.S. Environmental Protection Agency
Region IX

For the Regional Administrator